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ABSTRACT

The effects of school type and curriculum on high school grades, plans for further schooling, and enrollment in higher education and postsecondary training were studied. The data were obtained from the National Longitudinal Study of the High School Class of 1972. The base-year sample contained over 16,000 seniors in over 1,000 high schools of all types. By 1976 there was an 87 percent retention rate among the original respondents. Grades were found to be lower at college preparatory high schools and higher at vocational-technical high schools. Plans for college were found to be unaffected by school type, and plans for further vocational training were somewhat lowered by attending a specialized area vocational high school. Academic enrollment was found to be more frequent as a result of attending a college preparatory high school, and postsecondary training, broadly defined, was found to be unaffected by school type. Possible reasons for these findings, ways high schools can influence students, and implications for further research are discussed. (SW)

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THE INFLUENCE OF HIGH SCHOOL TYPE AND CURRICULUM ON ENROLLMENT IN HIGHER EDUCATION AND POSTSECONDARY TRAINING

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Recent studies of educational attainment have shown that the differentiation of academic and vocational curricula can affect further educational enrollment over and above the effects of the individual, interpersonal, and environmental factors that have previously been studied (Heyns, 1974; Rosenbaum, 1975, 1976; Alexander, et al, 1978). Even holding constant students' original intentions, socioeconomic background, and academic ability, students in college preparatory curricula are more likely to attend college than are those in general or vocational curricula. High schools are occasionally organized in such a way that students in these curricula are completely segregated from one another; the curricula are then institutionalized in separate school types. This study will examine the independent effects of high school type and high school curriculum on the postsecondary educational enrollments of a cohort of American high school seniors.

Most of the American research literature that looks for effects of the high school organization on further educational enrollment of students has produced very weak results -- nothing presently known about high schools independently affects very much the college attendance of students. But the available studies have focussed on the organizational features and resources of schools; because the great majority of American high schools belongs to a single, general-purpose type of school, variation in the public purposes of schools has not been considered. In contrast, studies of secondary schooling in other countries often show substantial

effects of school type (Himmelweit and Swift, 1969; Kerckhoff, 1975; Treiman and Terrell, 1975; Meyer, Tuma, and Zagorski, 1978). Even with other factors held constant, students who attend schools that are specialized in preparing students for university level work are much more likely to attend universities than are students in basic vocational or secondary-modern schools.

Meyer (1970, 1977) has referred to school type distinctions such as these under the heading of the school's "charter." A charter is a public, social (often legal) definition of a school as having a certain kind of purpose and product. In American education, almost all secondary schools have the same basic charter -- they are "high schools" and are understood to produce "high school graduates." Some prestige differences exist, of course, but these are barely distinct from the aggregate differences in background, prior preparation, and social resources of the students.

Some schools, however, are distinct. Apart from special schools for the handicapped, these fall into two classes: (1) vocational schools, officially designated as "area vocational education schools" by state boards of education, whose graduates have been prepared to enter the labor force, and (2) college-preparatory schools, often private rather than public, whose graduates have been prepared for entry to college. Both these types of schools produce graduates who are generally understood by the students, their parents, and the school staff to be a bit different from ordinary high school graduates. We expect these types of schools,

therefore, to have effects which differ from those of most high schools: we expect graduates of college preparatory schools to have higher rates of college attendance than those of ordinary schools, even with other factors (including students' curriculum and initial intentions) held constant; and we expect graduates of vocational high schools to have lower rates of college attendance, again with other factors held constant. Our study is the first American research systematically to compare the educational outcomes of these two distinctive school types and to contrast their effects with those of the typical American comprehensive high school.

Theoretical Model

The philosophy of differentiated curricula and schools holds that educational systems are more efficient when those who are unlikely to continue in school are prepared to enter the labor force, and those who have the ability can learn more rapidly. In this view, when vocational programs are sufficiently specialized, they have the resources to keep up with labor market needs, to update equipment and techniques that trainees use, and to provide organizational links to employers and post-secondary training opportunities. Similarly, when college preparatory programs are sufficiently specialized, they have the resources to provide college credit through advanced placement programs, to present advanced material and study methods, and to provide recruiting links to the system of higher education.

Egalitarian critics of differentiated curricula point to a number of negative consequences of non-college curricula on their students. General and vocational curricula reduce encouragement from parents and teachers for postsecondary schooling. Since this discouragement is independent of student's grades and study efforts, Bowers, et al (1977) argue that it results from the stigma attached to a vocational curriculum. General and vocational curricula reduce contact of their students with friends who plan further schooling and lower their students' self-concept (Alexander and McDill, 1976). Such curricula, by identifying vocational and general students as ready to work, lower their students' postsecondary educational goals, and by this means, reduce their later educational attainments.

When the high school curricula become so specialized that school officials institute separate high schools exclusively to incorporate one or another type of curriculum, the opposing effects of the curricula could become more intense. On the one hand, a vocational school with many occupational specialties could more effectively organize its teaching resources, so as to train for locally-needed skills, rather than provide busy-work to occupy the time of those who don't do well in more demanding academic courses. On the other hand, the work-oriented identity applied to graduates of such schools is more difficult to evade, so that the stigmatizing effect of the school is also stronger.

College preparatory curricula can also have somewhat different effects when separately incorporated in a single-purpose high school. While the teaching methods and resources could benefit from specialization, just as in vocational schools, the identity-conferring function of the school charter operates in a dual manner. First, the school confers college-bound status on every student, raising by default the educational goals of students whose plans were previously unformed. Second, even though the average students in such schools would probably have lower grades and class rank than they would in comprehensive high schools, they should be protected from the negative consequences of their performance by the reputation conferred on them by their school (Bassis, 1977).

This study will examine the influence of high school curricula and charters on two student educational outcomes: first, on enrollment in academic programs of higher education (i.e., two-year and four-year college students in academic programs taking two or more years to complete) and second, on enrollment in postsecondary educational or training programs (i.e., two-year and four year colleges; postsecondary trade, vocational, military, and business schools; and manpower or on-the-job training or apprenticeships). At some point during the first four and one-half years after high school, 53 percent of the high school class of 1972 enrolled in an academic program, while 82 percent participated in the more broadly defined training programs. Excluding those who definitely did enroll in

an academic program during this period, 64 percent participated in some other form of training in or out of school. A number of factors contribute to an individual participating in education and training after high school, so in order to distinguish the effects of the high school, a number of factors, such as parental socioeconomic status, race, ethnicity, sex, academic ability, and high school grades, will be controlled in the statistical analysis.

Data Sources

The data needed for this study come from the National Longitudinal Study of the High School Class of 1972 (NLS 72). The longitudinal design of the study makes it possible to relate the later postsecondary enrollments and programs to the prior attitudes, aspirations, demographic backgrounds, and high school experiences of a large sample of high school seniors. The base-year sample contains over 16,000 seniors in over 1,000 high schools of all types, including public, private, and church-affiliated high schools. After the base year survey in 1972, three followup surveys were conducted, with an 87 percent retention rate among the original respondents by 1976. This retention rate is very high by survey standards, and reduces the bias known to result from the greater ease of tracing college students. (See Levinsohn, et al, 1978 for further information on the NLS data base.)

Since there is no direct measure of school type in the NLS school questionnaire, a number of school attributes were examined on a case-by-case basis to decide on a school's type. College preparatory high schools were those with 100 percent of their students enrolled in an academic curriculum, that did not offer any vocational courses, that received no federal funds from participation in the Vocational Education Act of 1963, and that offered advanced placement or other college level courses. This definition resulted in identifying fourteen college preparatory schools with base-year participants, of which two were private and non-Catholic, four were public, and eight were Catholic. Often the names of these high schools would include descriptive words like "college," "university," "preparatory," or "academy" in their title. These schools enrolled only 244 sample members, who, when weighted represent less than two percent of the 1972 high school senior population.

Nearly fifty high schools in the NLS sample conform to the legal definition of "area vocational education schools" as provided in the Vocational Education Amendments of 1968. However, this definition includes not only specialized high schools, but also comprehensive high schools which provide "vocational education in no less than five occupational fields to persons who are available for full-time study in preparation for entering the labor market" (U.S. Office of Education, 1972). A number of similar school features were examined in order to exclude comprehensive high schools, resulting in identifying sixteen specialized

vocational high schools, one of which was Catholic. These schools enrolled only 256 sample members, who, when weighted, represent slightly more than one percent of the 1972 senior population.

The following variables were used for this study (Abbreviations of item names appear in parentheses):

1. Socioeconomic background (SES). The SES measure is based on a composite of father's education, mother's education, student-reported parental income, and a household item index. Earlier factor analyses have shown a common factor with roughly equal loadings on these items. The standardized items, in some cases imputed as means of subpopulations, were simply averaged to form an SES index (Appendix O, Levinsohn, et al, 1978).

2. Academic ability (AcAbil). The spring 1972 base-year data collection included an hour-long battery of items, from which an ability composite was constructed based on four equally-weighted standardized tests: reading, mathematics, vocabulary, and letter groups (Levinsohn, et al, 1978; Fetters and Melone, 1978).

3. Number of siblings (Sibs). The second followup survey in 1974 asked for the number of older brothers and sisters and the number of younger brothers and sisters. The sum of these items normally constitute the number of siblings variable, but if these items were missing, the base year item asking about the number of brothers and sisters dependent on your parents for support was substituted.

4. High school grades (Grades). High school grades were reported on the student record information form in a variety of grading systems and were converted to a common metric by a non-linear regression method (Breland, 1973).

5. College or vocational-technical plans in twelfth grade (Col 72 or VT 72). The base year survey asked for the highest level of education the student planned to obtain. Plans for junior college or further were coded college, while plans for business or vocational school were coded as a separate dummy variable. If this item was missing, the first followup question about how far in school the student actually would get was substituted.

6. College or vocational-technical plans before tenth grade (Col 68 or VT 68). The NLS began in the spring of 1972, so only a retrospective approximation of college plans before that is possible. The base-year survey asked when the respondent had decided whether or not to go to college. For those who had decided before tenth grade, the 1972 plans were taken to be the earlier plans. There is an obvious bias toward consistency with present plans (Kolstad, 1969), and there are restricted possibilities for later change in this variable, but plans before high school affect curriculum choice and consequently need to be controlled.

7. Academic enrollment from 1972 to 1976 (AcEnroll). Nearly thirty items from three followup surveys were examined in order to determine undergraduate enrollments in academic college programs for each year

between October 1972 and October 1976, according to the nesessarily elaborate procedures developed by Bruce Eckland, et al (1979). Academic enrollment in this period was defined by academic enrollment in any school at any time during the four years. The other respondents were classified as never enrolled only if they definitely reported not enrolling during the entire period, leaving eleven percent unclassified due to missing information.

8. Postsecondary training from 1972 to 1976 (PsTrain). Nine additional items from the three followup surveys were examined to determine participation in postsecondary training, defined as any of the following: academic enrollment; vocational enrollment in two-year or other schools; specialized military training of at least four weeks duration; on-the-job or manpower training; or registered apprenticeships.

Statistical Model

This study follows the general procedures of previous research on educational attainment (Alexander and Eckland, 1975; Velez and Rosenbaum, 1978) by specifying a recursive causal ordering among the variables, shown in Figure 1, and by using this causal ordering to estimate a series of multiple regression equations, as suggested by Alwin and Hauser (1975). Their suggestion is useful because the difference in each variable's coefficients in successive equations indicates the extent to which the new intervening variables mediate the total effect of the prior variables.

The miniscule proportion of the 1972 high school senior population enrolled in specialized high school types guarantees that little additional variation in aggregate enrollments can be explained by school type, even if major consequences occur for those who attended such schools. One advantage of large scale surveys like the 72 NLS is the ability to obtain data on rare populations. Even though this survey is very large by most standards, the standard errors of the coefficients for school type will be large because there are so few cases of students in specialized high schools. In addition, because there are so overwhelmingly many sample members in comprehensive high schools, the standardized regression coefficients for the specialized high schools will be small. Nevertheless the unstandardized regression coefficients are invariant with respect to population distributions, and can be directly compared to the coefficients for college preparatory or vocational-technical curricula in comprehensive high schools in order to assess the importance of the effects of attending a specialized high school.

Results

a. Distinctive curricula? Table 1 presents some descriptive information about student course work in the different school types and curricula. If students took six classes per week during each semester of the four years of grades nine through twelve, they would accumulate a total of 48 semesters of course work. The average number of semesters

is rather close to this expectation: 47.6 semesters for the total population. There are some differences by school type and curriculum, but they are not large. College-prep students in comprehensive high schools take 44 semesters, while students in college-prep high schools take 46 semesters. Vocational students in comprehensive high schools take 55 semester courses, while students in vocational high schools take 57 courses.

There are moderate differences by school type and curriculum in the proportion of course work devoted to academic subjects (defined as science, foreign language, social studies, English, and mathematics). College prep students in comprehensive high schools devote 81 percent of their studies to academic subjects, compared to 84 percent for students in college-prep high schools. Vocational students in comprehensive high schools devote 63 percent of their time to academic subjects, compared to 67 percent for students in vocational high schools.

School types and curricula also show small differences in the proportion of course work devoted to vocational training (defined as agriculture, business, commerce, distributive education, health occupations, industrial arts and occupations, home economics, and trade occupations). College-prep students in comprehensive high schools devote 8 percent of their course work to vocational subjects, compared to 3 percent among students in college-prep schools. Vocational students in comprehensive

high schools devote 19 percent of their work to vocational training, compared to 15 percent among students in vocational schools.

The three descriptive measures of course work do not reveal strikingly distinct curricula. College-prep schools deliver slightly more academic course work than comprehensive high schools to their college-prep students, but most course work still consists of English, mathematics, and social studies, even for vocational students. Vocational schools appear less distinctive than college-prep schools, because the course work there is less, not more, vocational than the curriculum delivered to vocational students in comprehensive high schools. While more refined measures of course work might reveal ways in which the content and intensity of the learning differ by school type and curriculum to a greater extent than that shown here, schools can affect students (and non-students) in other ways than by what information and skills the students learn (Meyer, 1970, 1977).

These schools and curricula differ in their purposes: to prepare students for direct entry to the labor market or for further study at the college level. College prep schools and curricula demonstrate to other students and non-students that they are not ready for college; vocational schools and curricula produce "high school graduates" with no educational future. The public purpose of a school can directly affect its students' future, apart from the content of schooling.

b. School and Track Membership. Table 2 presents the means and standard deviations of the variables used in this study, weighted to represent population parameters. The correlations among the variables are presented in Table 3. The first four lines of Table 4 present the regression equations for school type and curriculum. The results for college prep curriculum show large influences of SES, ability, and early college plans; small but significant influences of race and ethnicity; and negligible influences of gender and number of siblings. The results for vocational or technical curricula look similar, except that the direction of each effect is different and that women are more likely to enroll in a vocational curriculum (while gender had no direct influence on taking a college-prep curriculum).

The results of predicting attendance in a specialized college prep or vocational-technical high school parallel the results for curriculum, except the relationships are much weaker. Only a negligible one percent of the variation in such attendance can be explained with the eight predictor variables.

c. Grades. The second step of the analysis looks at grades as a function of the eight previous variables, with and without school type and curriculum. Apart from the various indirect ways that socioeconomic background can raise high school grades, the direct effect of SES is surprisingly negative. The largest effect is that of academic ability,

though race, ethnicity,and gender all have significant influences on grades. Students who planned early to go to college, or even to a vocational or business school, get better grades in high school. Within comprehensive high schools, students in college prep tracks get higher grades, probably because their relative performance is being compared to all other students in the school, not just the others in their classes (Rosenbaum, 1976, Ch. 5). Vocational track students also get better grades, for two possible reasons. If vocational courses have standards that are easier to meet, vocational track students, who take more such courses, would have higher grades. Also, if the vocational program offers training that such students value, they may work harder than general curriculum students to meet their course requirements.

Attending a college prep high school significantly lowers the students' grade average, probably because their relative performance is compared to the other students in the same school, who in this case are similarly able and similarly intend to go to college. This effect is greater than that of being in a college curriculum, so that the net direct effect of being in both a college prep curriculum and a college prep school is to have lower high school grades than those in all the other tracks and school types.

d. Educational Plans. Since a rough measure of plans before tenth grade is included in the equations predicting college or vocational school

plans at the end of high school, the regression coefficients reported here indicate the way these factors alter student plans in ways they didn't expect when they started high school, rather than the total influence of the background factors.

The regressions on college plans of seniors in Table 4 show that being Hispanic, black, or male, having higher academic ability, and coming from a higher SES background increase the likelihood of a student planning to attend college, holding constant plans before high school. The number of brothers and sisters students have is unrelated to their college plans.

The regressions also show the effects of high school type and curriculum on college plans, holding constant these background factors and plans before high school. The results indicate that college-prep curricula increase the likelihood of planning to attend college, while vocational or technical curricula reduce college goals, as earlier studies have shown. In contrast, the two school types have no additional effects on changing plans for college. It seems likely that the specialized schools have no influence in this case because those who attend such schools have already made up their minds whether or not to go to college.

A problem in analyzing plans for further vocational training is that the comparison group is mixed; it includes those who plan to attend, and who later enroll in college, and those who plan to leave school and who never enroll in college. In order to make the comparison group more

homogenecus, another set of regressions was computed, excluding those who definitely enrolled in an academic course of study in college. These regressions, reported in Table 5, show a pattern similar to the influences on college plans, in that being Hispanic, black, or male, having higher academic ability, and coming from a higher SES background increase the likelihood of planning further vocational training, holding constant plans before high school. However, the influences are all weaker than those on college plans, and the influence of academic ability is considerably smaller. In the case of vocational plans, in contrast to college plans, the curriculum effects are absent; neither college-prep nor vocational students who do not attend college are any more or less likely to plan to obtain vocational school training. There is a small school effect; those who attend a specialized vocational high school are somewhat less likely to plan further vocational training in school.

e. Enrollment in Higher Education. The regressions predicting later enrollment in academic programs of higher education in Table 4 show that being Hispanic, black, or male, having higher academic ability, coming from a higher SES background, having fewer brothers and sisters, and planning early to go to college but not vocational or business school increase the likelihood of enrollment. These findings agree with those of previous studies.

The second regression adds school type and curriculum as intervening variable in the prediction of academic enrollment. As other research has

shown, college preparatory curricula raise the likelihood of enrollment, while vocational and technical curricula, designed to prepare students for the labor market, lower the likelihood of enrollment. It was expected that specialized vocational schools would intensify this depression of enrollment, but the regression shows no effect. In contrast, attending a specialized, college prep high school does have a significant total effect, raising the likelihood of academic enrollment about four-tenths as much as does a college-prep curriculum.

The third regression adds grades to the prediction of academic enrollment. Since attending a college-prep school depresses grades, the direct effect of attending this type of high school increases, raising the likelihood of academic enrollment about five-tenths as much as does a college-prep curriculum.

The fourth regression adds senior plans for further schooling to the prediction equation. These plans are very realistic, so the coefficients of most of the background factors are much reduced. Since students in college-prep schools generally made their minds up early, this control doesn't much reduce the effect of school type, though it does reduce the effect of college prep curriculum. In this regression, the school effect is seven-tenths the size of the curriculum effect.

f. Postsecondary Training. The regressions predicting all forms of postsecondary training among those who did not report enrolling in an

academic college program are reported in Table 5. The first regression on the basic set of background factors shows that being Hispanic, black, or male, having higher academic ability, coming from a higher SES background, having fewer brothers and sisters, and planning early to go either to a trade or business school increases the likelihood of postsecondary training. The overall predictability of the regression and the size of most effects are much lower for the training equation than for the academic enrollment equations. The effect of academic ability on training is less than half its effect on academic enrollment.

The next three equations predicting postsecondary training show the effects of school type and curriculum, with and without controlling for grades and senior year plans. In each case the school effects are negligible, but a vocational or technical high school curriculum has a small depressing influence on the likelihood of postsecondary training.

One other finding here deserves comment: being female greatly lowers the likelihood of obtaining postsecondary training. There are two possible ways this can happen. Women who marry and leave the labor force are less likely to obtain vocational training, and women who work in traditionally female, often clerical, jobs find that little training beyond that provided in high school is required (Kolstad, 1977). Middle-level occupations for which vocational training is useful tend to be sex-segregated. Further research in this area should probably analyze men and women's training and careers separately.

Discussion

To summarize briefly, this study has examined the effects of school type and curriculum on high school grades, plans for further schooling, enrollment in higher education and postsecondary training. Grades were found to be lower at college preparatory high schools and higher at vocational-technical high schools, indicating that teacher assessments of performance are based on standards relevant to each school, not on standards widely applicable to any school. Plans for college were found to be unaffected by school type, probably because those rare students who attend specialized high schools must decide on their plans early, and, due to data limitations, only those who were initially undecided would show changes in plans. Plans for further vocational training were somewhat lowered by attending a specialized area vocational high school indicating either that such schools provided sufficiently adequate training that students no longer felt the need for more or that such schools convinced their students they were ready to go to work immediately. Academic enrollment was found to be more frequent as a result of attending a college preparatory high school. Postsecondary training, broadly defined, was found to be unaffected by school type.

Schools transfer skills and information to students, but this is not the only way schools can influence their clientele. The college-prep curriculum did not appear markedly less academic in a comprehensive high school than in a specialized college prep high school, yet the specialized

school had a positive influence on academic enrollment. Another way high schools can influence their students is by using their organizational mandate to change the educational identify of their students to "graduates." Specialized college prep high schools identify and confer elite membership early, while specialized vocational-technical high schools identify and confer qualifications for middle level occupations.

Further research on effects of these specialized high schools might find that college prep graduates attend more selective colleges, accumulate a larger quantity of college credits during the first four years, and more frequently enter graduate or professional schools, in line with the elite status conferred on them by their high school. Further research might also find that vocational school graduates are more frequently employed, earn more, and attend later training programs of longer duration than comparable comprehensive high school graduates, though the results here may be weaker because the futures these schools offer are less promising than those offered by continuing to higher education or by leaving the labor force to marry.

Figure 1. Model of enrollment in higher education and postsecondary training.*

SES	CP school	Grades	Col 72	AcEnroll
Sibs	CP track		VT 72	PsTrain
AcAbil	VT track			
Black	VT school			
Hispanic				
Female				
Col 68				
VT 68				

*See text for explanation of variable abbreviations. Variables are ordered from left to right according to causal sequence. The ordering is determined by the time frame in which measures are taken or events occur. The model is fully recursive. Since no argument is presented for omitting any of the usual arrows from the model, for convenience they have all been left out of the figure.

Table 1. Weighted means and standard deviations of the proportions of academic and vocational course work and total semesters of course work by school type and curriculum, for the high school class of 1972.

School type and curriculum	Proportion of academic courses M	Proportion of academic courses SD	Proportion of vocational courses M	Proportion of vocational courses SD	Total number of semesters M	Total number of semesters SD	Number of cases
College Prep High School	.840	.076	.034	.042	45.6	6.4	244
Comprehensive High School	.730	.137	.124	.094	47.5	21.7	16183
College-prep Curriculum	.806	.099	.075	.066	43.7	11.7	6872
General Curriculum	.711	.120	.133	.088	46.4	21.9	5364
Voc-tech Curriculum	.630	.138	.194	.094	54.9	30.2	3938
Vocational-technical High School	.674	.140	.154	.076	56.6	28.8	256
Total	.730	.137	.124	.094	47.6	21.7	16683

Table 2. Weighted means, standard deviations, and percentages of missing cases for the entire high school class of 1972 (N = 16683 and excluding college attenders in academic programs (N = 9029)

	Base-year sample			College non-attenders		
Variable	M	SD	% Missing	M	SD	% Missing
SES	-.007	.69	0.4	-.249	.58	1.0
Sibs	2.94	1.99	1.4	3.14	2.09	2.4
AcAbil	2.04	.33	4.9	1.90	.30	5.3
Black	.085	.28	0.3	.094	.29	0.8
Hispanic	.034	.18	0.3	.039	.20	0.8
Female	.50	.50	0.0	.53	.50	0.4
Col 68	.35	.48	5.8	.10	.30	9.1
VT 68	.04	.19	5.8	.06	.24	9.1
CP school	.016	.12	0.0	.005	.07	0.0
CP track	.46	.50	0.0	.23	.42	0.4
VT track	.24	.42	0.0	.38	.48	0.4
VT school	.011	.11	0.0	.018	.13	0.0
Grades	4.3	1.9	5.3	3.7	1.8	6.2
Col 72	.58	.49	4.7	.27	.44	7.0
VT 72	.20	.40	4.7	.33	.47	7.0
AcEnroll	.53	.50	11.1	-	-	-
PsTrain	.82	.38	7.1	.64	.48	13.5

Table 4. Sequential regression model of enrollment in academic courses of study in higher education for the high school class of 1972.

	Independent Variables															
Dependent Variables	Constant	SES	Sibs	AcAbil	Black	Hisp	Fem	Col 68	VT 68	CPschl	CPtrck	VTtrck	VTschl	Grades	Col 72	VT 72	R^2
Col Prep School	-.020	.004*	-.000*	.021	.015	.006*	-.008	.011	.001*								.010
Col Prep Track	-.893	.069	-.005*	.614	.112	.076	-.005*	.286	.019								.389
Voc Tech Track	.775	-.063	.001*	-.260	-.112	-.112	.048	-.185	-.011*								.149
Voc Tech School	.016	-.007	.000*	.001*	.028	-.001*	-.003*	-.012	.001*								.014
High School Grades	-3.34	-.191	-.003*	3.11	.291	.347	.736	.726	.171								.385
High School Grades	-2.96	-.215	-.001*	2.78	.243	.328	.723	.595	.162	-.917	.654	.223	.449				.403
College Plans 72	-.135	.082	-.004*	.301	.192	.170	-.054	.511	-.367								.468
College Plans 72	.064	.066	-.003*	.189	.166	.149	-.048	.453	-.371	.010*	.142	-.092	.005*				.491
College Plans 72	.089	.068	-.003*	.166	.164	.146	-.054	.448	-.372	.017*	.137	-.094	.001*	.0084			.493
Voc Tech Plans 72	.389	-.004*	.000*	-.001*	.029	.007*	-.007*	-.255	.726								.256
Voc Tech Plans 72	.333	.000*	.000*	-.000*	.039	.012*	-.008*	-.238	.727	-.028*	-.050	.015*	-.060*				.260
Voc Tech Plans 72	.332	.000*	.000*	-.000*	.039	.012*	-.008*	-.238	.727	-.028*	-.049	.015*	-.060*	-.0004*			.260
Acad Enroll 72-6	-.267	.119	-.013	.375	.230	.204	-.061	.403	-.114								.397
Acad Enroll 72-6	-.035	.100	-.012	.241	.199	.179	-.055	.335	-.119	.069	.172	-.099	.005*				.429
Acad Enroll 72-6	.011	.104	-.012	.199	.195	.174	-.066	.326	-.121	.083	.162	-.103	-.002*	.015			.432
Acad Enroll 72-6	-.038	.075	-.011	.129	.123	.111	-.043	.142	.013*	.076	.106	-.063	-.001*	.012	.428	.034	.517

*Coefficient less than twice its standard error, increased by 20 percent to adjust for the design effect due to clustered sampling (Shah, et al, 1978).

Table 5. Sequential regression model of all modes of pos secondary vocational training, excluding those members of the high school class of 1972 who reported academic enrollment.

	Independent Variables															
Dependent Variables	Constant	SES	Sibs	AcAbil	Black	Hisp	Fem	Col 68	VT 68	CPschl	CPtrck	VTtrck	VTschl	Grades	Col 72	VT 72	R^2
Col Prep School	-.701	.049	-.003*	.471	.109	.056	.002*	.259	.055								.19
Voc Tech Track	.735	-.067	-.001*	-.217	-.140	-.125	.056	-.202	-.025*								.05
Voc Tech Schl	.025*	-.006*	.001*	.000*	.030	.004*	-.006*	-.009*	.003*								.00
High School Grades	-2.63	-.249	-.007*	2.63	.193	.225	.808	.457	.241								.26
High School Grades	-2.36	-.259	-.005*	2.38	.146	.222	.792	.337	.212	-1.00	.679	.255	.495				.28
College Plans 72	-.048	.070	-.005*	.178	.153	.150	-.044	.736	-.217								.32
College Plans 72	-.048	.062	-.005*	.126	.137	.139	-.041	.703	-.224	.049*	.090	-.044	.012*				.33
College Plans 72	.065	.064	-.005*	.108	.136	.138	-.047	.701	-.225	.056*	.085	-.046	.008*	.007			.33
Voc Tech Plans 72	.286	.035	.000*	.044	.109	.049	-.032	-.345	.669								.17
Voc Tech Plans 72	.288	.034	.000*	.044	.111	.050	-.032	-.345	.6r9	-.045*	.000*	-.001*	-.072				.17
Voc Tech Plans 72	.300	.036	.000*	.032	.110	.049	-.036	-.347	.6r8	-.040*	-.003*	-.002*	-.075	.0049*			.17
Postsec Train 72-6	.635	.082	-.010	.137	.158	.075	-.160	.121	.126								.06
Postsec Train 72-6	.695	.077	-.010	.110	.148	.067	-.157	.102	.123	.043*	.036	-.046	-.007*				.06
Postsec Train 72-6	.706	.078	-.010	.099	.147	.066	-.161	.101	.122	.048*	.032*	-.048	-.010*	.0048*			.06
Postsec Train 72-6	.643	.061	-.009	.074	.104	.032	-.146	.033	.049	.044*	.017*	-.039	-.002*	.0026*	.181	.170	.09

*Coefficient less than twice its standard error, increased by 20 percent to adjust for the design effect due to clustered sampling (Shah, et al, 1978)

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Table 3. Matrices of correlations among variables, based on pairwise deletion, for the entire NLS sample (below diagonal) and for those who never enrolled in an academic course of study in college (above diagonal).

Variables	SES	Sibs	AcAbil	Black	Hisp	Fem	Col 68	VT 68	CPschl	CPtrck	VTtrck	VTschl	Grades	Col 72	VT 72	PsTrain
SES	-	-.204	.312	-.291	-.152	-.032	.147	.014	.035	.184	-.105	-.048	.048	.162	.000	.117
Sibs	-.211	-	-.119	.215	.102	.033	-.055	.002	-.032	-.061	.008	.022	-.031	-.053	.020	-.059
AcAbil	.449	-.167	-	-.347	-.144	.067	.174	.005	.041	.379	-.135	-.035	.442	.183	-.026	.082
Black	-.291	.216	.350	-	-.096	.010	.008	.032	.001	-.056	-.025	.075	-.097	.037	.064	.042
Hispanic	-.180	.105	-.166	-.085	-	-.004	-.030	-.009	.001	-.048	-.013	.003	-.032	.017	.009	-.011
Female	-.050	.036	.008	.044	-.004	-	-.008	.032	-.022	.024	.051	-.019	.262	-.052	-.020	-.162
Col Plans 68	.357	-.140	.424	-.059	-.050	-.029	-	-.081	.014	.258	-.154	-.020	.137	.529	-.227	.102
Voc Plans 68	-.046	.018	-.062	.035	-.000	.036	-.145	-	.012	.023	-.005	.007	.036	-.153	.356	.056
Col Prep School	.053	-.018	.071	.009	-.010	-.034	.074	-.009	-	.118	-.053	-.010	-.014	.033	-.002	.025
Col Prep Track	.361	-.129	.550	-.123	-.077	-.012	.483	-.061	.135	-	-.398	-.072	.277	.258	-.033	.102
Voc Tech Track	-.235	.065	-.296	.034	.015	.062	-.319	.041	-.070	-.498	-	.160	-.027	-.179	.014	-.100
Voc Tech School	-.080	.039	-.064	.092	.002	-.006	-.065	.012	-.015	-.104	.184	-	.030	-.018	-.013	-.010
Grades	.206	-.082	.563	-.124	-.054	.197	.370	-.031	-.004	.430	-.181	-.010	-	.122	-.007	.015
Col Plans 72	.346	-.114	.418	-.022	-.020	-.073	.630	-.229	.077	.489	-.354	-.064	.326	-	-.426	.148
Voc Plans 72	-.157	.065	-.207	.072	.026	.014	-.370	.390	-.042	-.236	.152	.017	-.160	-.585	-	.105
Ps Train	.237	-.103	.253	.010	-.019	-.129	.300	-.014	.051	.286	-.237	-.038	.171	.388	-.084	-
Ac Enroll	.376	-.147	.435	-.030	-.024	-.076	.553	-.121	.092	.499	.358	-.065	.338	.658	-.341	.508